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To meet the growing need for trained workers in quantity food preparation, guidelines are offered for organizing courses in vocational and comprehensive high schools to prepare students for entry level occupations. Advisory committees composed of industry representatives, employees, and the public can help the school develop plans, organize the curriculum, secure necessary equipment, publicize the program, recruit students, and place graduates. Specific needs of the community, identified by surveys, should be the basis of program development. Both teachers with suitable trade experience and employers who will assist with cooperative training opportunities are needed. Provision of food materials for the class and utilization of finished products are major considerations in this type of program. Guidelines are presented for program planning and development, program operation for high school youth, employer responsibility for on-the-job training, and promotion and conduct of preparatory and extension courses for adults. The document is illustrated with photographs and contains a list of related publications. (FP)

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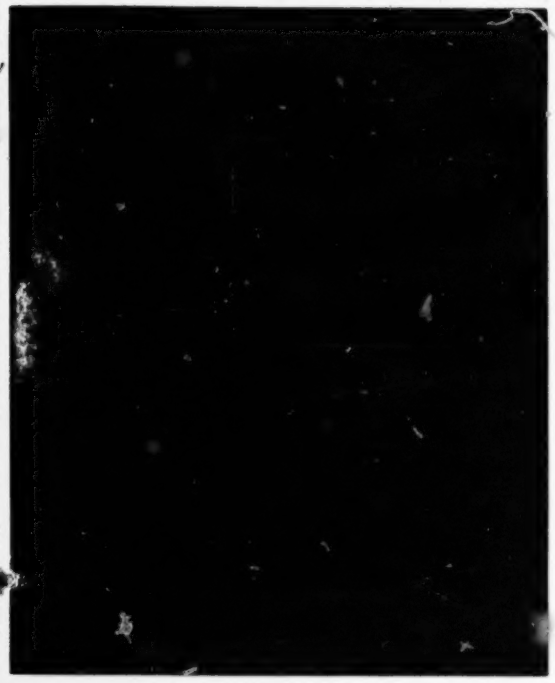

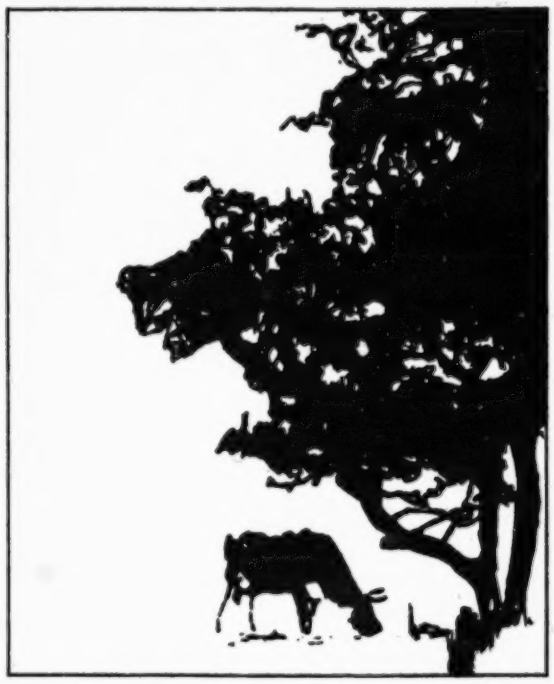

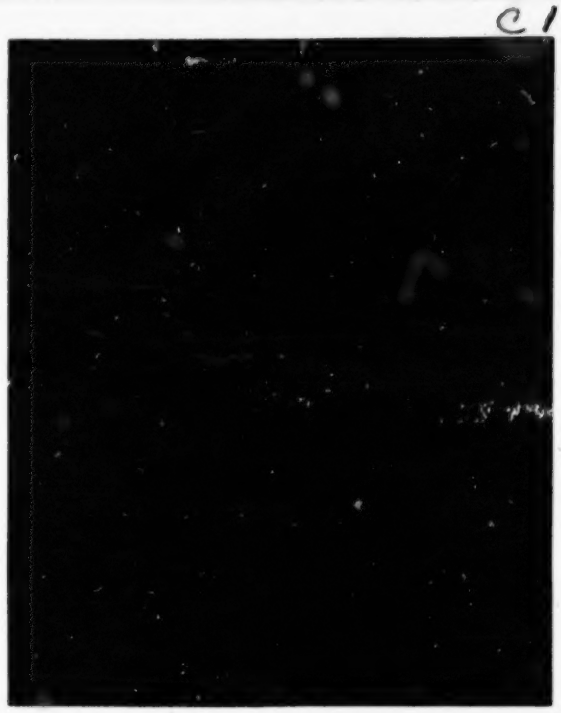

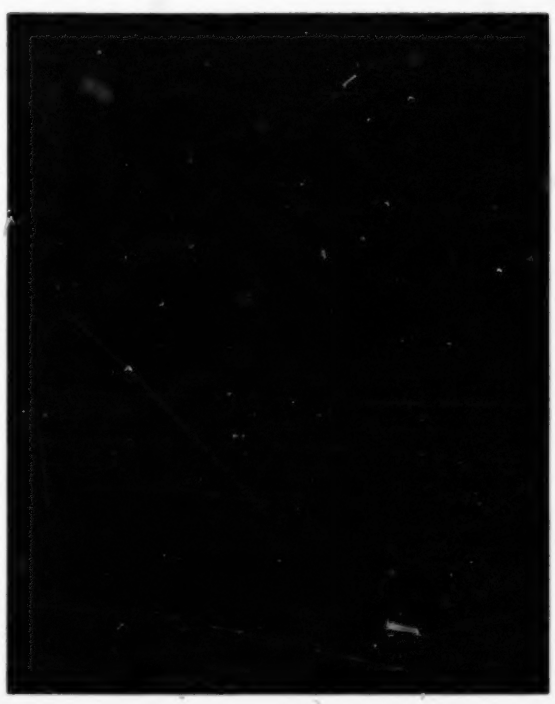

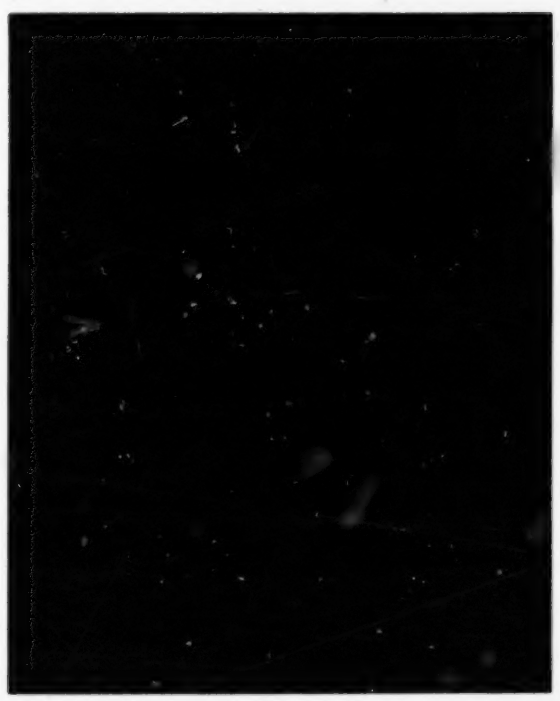

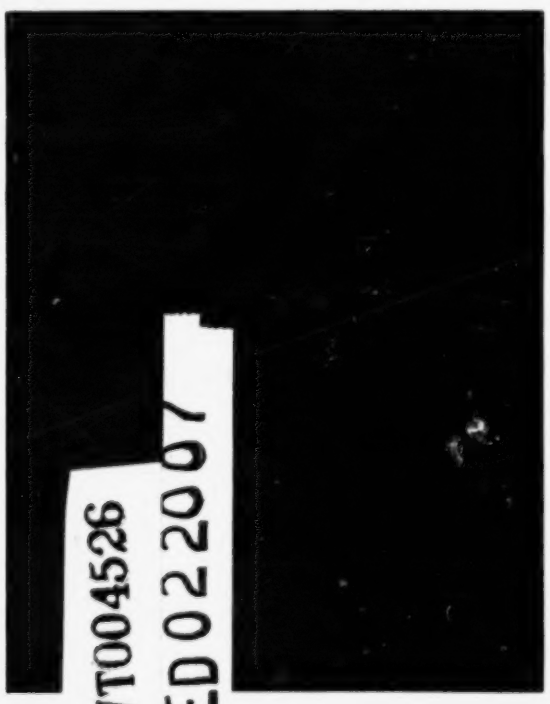

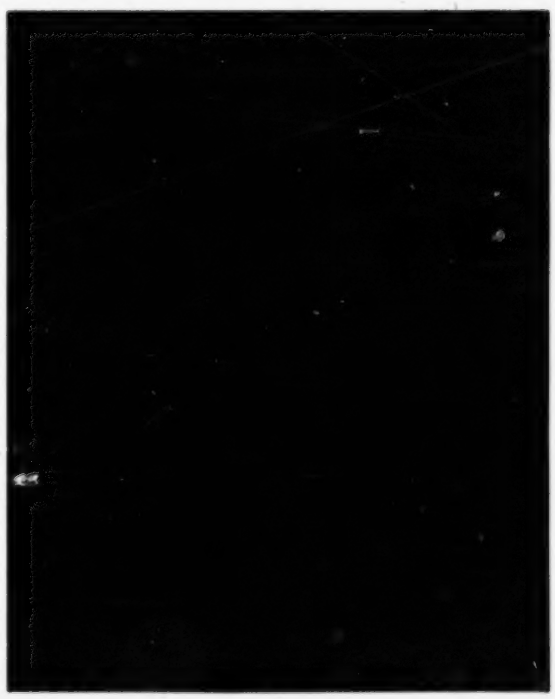

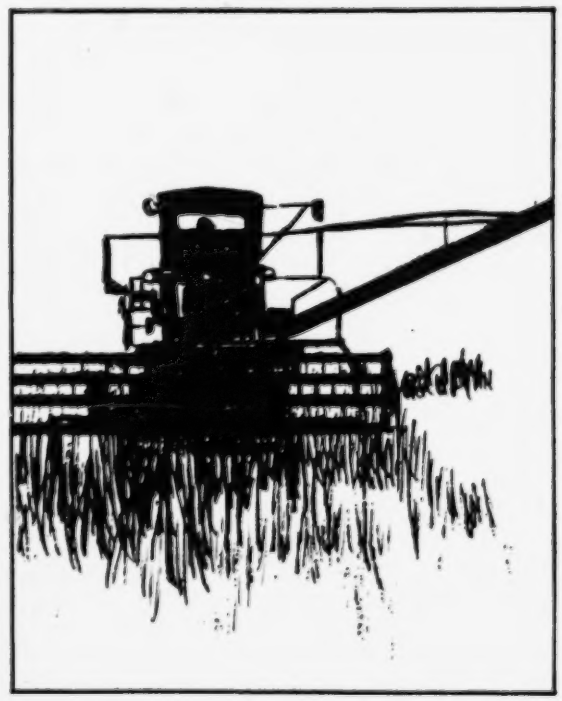

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ORGANIZING A FOOD TRAINING PROGRAM

HIGHLIGHTS

*The increasing demand for trained workers in quantity food preparation makes it essential that schools and the food service industry work together in planning preparatory programs.

*Individual community needs must be considered in planning the content of a program; persons with suitable trade experience may be hired and then trained in teaching techniques; employers should cooperate in offering on-the-job training opportunities.

*An advisory committee composed of representatives from industry, employees, and the public should be appointed by the local board of education. The committee should advise on all matters relating to the program, including the follow-up of graduates.

*Potential sources of trainees are boys and girls of high school age and employed or unemployed adults who may be trained or retrained as food production personnel.

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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ORGANIZING A FOOD TRAINING PROGRAM

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
John W. Gardner, *Secretary*
Office of Education
Harold Howe II, *Commissioner*

Manpower Development and Training Program

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FOREWORD

A continued expansion is expected in the food service industry, not only because of the population growth but because of the increasing number of people who will eat meals away from home. Contributing to this expansion are such factors as rising income levels; more travel, both for business and pleasure; the greater number of housewives being employed outside the home; the increasing number of students attending schools and colleges; and the increasing number of patients, attendants, and others who necessarily eat in hospitals and other institutions.

This expansion in the food service industry will increase the demand for personnel skilled in food preparation in all segments of the industry. Because of this, management has expressed greater interest in the secondary school vocational education programs as a means for providing the needed trained workers.

This booklet suggests guidelines for educational planners, school administrators, and industry advisory committees desiring to establish sound programs in quantity food preparation. It is a companion publication to *Quantity Food Preparation—A Suggested Guide.*

This publication is a revision of the booklet *Training for Quantity Food Preparation,* which appeared in 1956 through the efforts of the Council on Hotel, Restaurant and Institution Education, the National Restaurant Association, and the American Hotel-Motel Association. This revision was prepared by John J. MacAllister, Director, School of Hotel and Restaurant Administration, Oklahoma State University, Stillwater, Oklahoma.

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Part I

LAYING THE GROUNDWORK FOR PROGRAM DEVELOPMENT

Purpose of a Course for Training Workers in Quantity Food Preparation

The food service industry in the United States has undergone remarkable changes in recent years. Automation has brought about improved food preparation and production methods. Advances in food technology and processing have materially increased the supply and variety of food products. Public eating habits have undergone marked changes resulting in new and different types of food service establishments. The industry has expanded to keep pace with an ever increasing population.

Industry expansion and the development of new production techniques indicate a continued growth in the demand for skilled food production personnel.

The need for programs to train American youths in the various food service skills was recognized shortly after World War I. However, virtually nothing was done to promote training programs for food service workers until the 1930's. A few programs were established in public schools during the late 1930's and early 1940's. However, it was not until the close of the 1940's that the industry demonstrated any interest in vocational and trade schools as possible vehicles for the establishment of educational programs for the industry.

A report by the Statler Foundation in 1955 emphasized the need for increasing the emphasis placed on foods training courses.[1] The report strongly recommended a long-range plan for establishing training programs to meet existing needs and the increasing future demand for food service personnel.

The need for training food preparation and production personnel has been emphasized by the Council on Hotel, Restaurant and Institution Education,[2] the Educational Committee of the National Restaurant Association, and the Educational Institute of the American Hotel-Motel Association. They have been very active in encouraging their members to assist in the establishment of programs to meet the industry's needs.

At present industry's interest in educational programs for food preparation, production, and service personnel is great. The establishment of programs in public schools is being encouraged by the Federal and State governments, to meet the increased demand for skilled food personnel.

Establishing Good Working Relationships Between School and Industry

One stumbling block in establishing food trades training programs is the lack of effective communication between and among public school officials, industry, and the general public. Each party in this group must be fully aware of the values to be derived as well as the part that each must play in setting up and operating an effective training program. If problems exist, they will be easily resolved through sharing information on a cooperative basis.

Any trade training program has a twofold objective: to meet the needs of persons requiring training and to satisfy the requirements of the industry for which the training is designed. This objective will be achieved through the cooperation and understanding of all parties concerned.

To train effectively, the school must meet industry's requirements by establishing an effective curriculum and then obtaining adequate facilities and competent instructors. Since adequate

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[1] A Research Study To Improve the Supply of Cooks and Bakers for the Hotel Industry. Statler Foundation, 250 Park Avenue, New York, N.Y. 10017.

[2] A membership organization consisting of representatives from universities, colleges, and schools offering courses in food service and other related areas.

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facilities for a food trades program represent a considerable capital investment, the investment must be justified by a sufficient enrollment.

A sufficient enrollment can be assured through efforts of employers, workers, and other interested persons. For example, school counselors are in position to tell students about opportunities in the food preparation field. They can help students determine whether or not they have the qualifications necessary for success in this field, and they can point out the value of training. Counselors are not, however, in a position to recruit students for any one trade. The industry must create its own demand for a food trades program by providing young people with opportunities for employment and advancement.

The school meets its obligation by providing training of the quality and type needed by the industry and also by maintaining selective standards that will make those who graduate from high school preparatory programs or complete extension courses ready for immediate employment.

Schools and industry should cooperate to place and follow up the preparatory graduate and to follow up persons who complete extension courses. The school must be able to provide a realistic evaluation of preparatory graduates' capabilities so that these graduates may be placed in positions for which they qualify. Industry has the responsibility for developing job incentives to encourage graduates to remain in the food trades field.

Scope of Training

Food trades programs should be planned at the local level to meet community needs. This bulletin is intended to serve as a suggested training guide for State and local administrators of vocational programs, advisory committee members, and food industry people. It points up the steps to be taken in establishing a vocational food trades program and offers suggestions helpful in program development.

Training may be divided broadly into two categories: *Preparatory* training for those who are getting ready to enter the food trades industry, and *supplementary* training for those already employed in the occupation who wish to increase their knowledge and skill. Cooperative training and apprenticeship programs are important in developing workers in these two training categories.

Selecting the Planning Committee

Although surveys by the hotel and restaurant industries indicate that the need for trained cooks and bakers is national in scope, training should take place on a local level to meet the needs of a designated area or community. Usually, the training program is conducted in a vocational training center which has as its objective training persons for employment and service in the community.

Experience has proved that to be successful any vocational education program must have the support of both the school and the industry concerned. An important prerequisite for initiating a commercial food trades program is the selection and appointment, by the board of education, of a planning or steering committee.[3] This committee should be composed of representatives from all groups having a professional or trade interest in developing a food trades program. Among the most important are:

1. School officials.
2. Representatives of both employer and employee groups.
3. Other interested persons (when desirable).

Determining the Need

The planning committee is responsible for determining the needs of the area to be served and for suggesting procedures for meeting these needs. Until the needs have been determined, a food trades training program should not be started. The needs may be identified by the following:

1. A comprehensive survey of the number of food service establishments and the number of persons engaged in food preparation. (The local public employment service office is an important source of information and may be able to supply this information.)
   a. The total number of food service establishments broken down into types (and the number of each type), such as restau-

[3] U.S. Department of Health, Education, and Welfare. *Organization and Effective Use of Advisory Committees.* U.S. Government Printing Office, 1960, p. 4.

rants, cafeterias, hotel dining rooms, hospitals, drive-ins, soda fountains, and industrial catering firms.

b. The types of jobs in each establishment and the number of employees in each job classification, such as chef, steward, short order cook, baker, supervisor. (The average turnover rate due to death, retirement, and other reasons should be included.)

c. The precise level of skill needed for each type of job (if job title is not self-explanatory or if available personnel do not possess this level).[4]

d. The number of male and female employees, and, if possible, which are preferred by management.

e. Age requirements and other limitations for each job.

f. Wages of different levels of workers.

2. An investigation of the present and future supply and demand for trained workers in the area, including a determination of the factors in supply and demand. (The local public employment service office should be consulted on the number of job openings. This office may be able to conduct a supply and demand survey or assist others in conducting it.)

3. An evaluation of present local training facilities and practices.

a. Is training achieved through:

(1) On-the-job training.

(2) Day or night trade courses.

(3) Comprehensive high school vocational courses.

(4) Cooperative occupational training.

(5) Apprentice training.

(6) Other training.

b. Is the existing program adequate?

The results of the investigation should indicate the locale in which there is need for improving the quality or the supply of skilled workers. It should also show the present scope of adult or preparatory training within these areas and the potential placement opportunities.

On the basis of these facts, recommendations can be made on the types of preparatory or extension courses needed.

[4] Because job titles vary greatly, *Dictionary of Occupational Titles* code numbers may prove helpful in pinpointing the job levels.

Meeting the Need

The planning committee should suggest names for an advisory committee composed of from five to seven local representatives. They should be appointed by the board of education. School officials should attend advisory committee meetings in an ex officio capacity. The functions of this advisory committee will be to advise the local school authorities on:

1. Matters relating to any phase of the total program:

a. General promotion and establishment of good working relationships between school and industry.

b. Courses that will meet needs for training.

c. Content and organization of vocational courses.

d. Equipment necessary and its selection, procurement, and layout.

e. Plans for and purchase of materials and supplies.

f. Sales of the food product at a price that will equal the cost of the raw materials.

g. Determination of teacher qualifications, and, on request, helping with teacher recruitment and training.

2. Matters relating specifically to the operation of programs for high school youth:

a. Student selection standards designed to qualify graduates for employment.

b. Arrangements for part-time cooperative employment for students engaged in preparatory training courses.

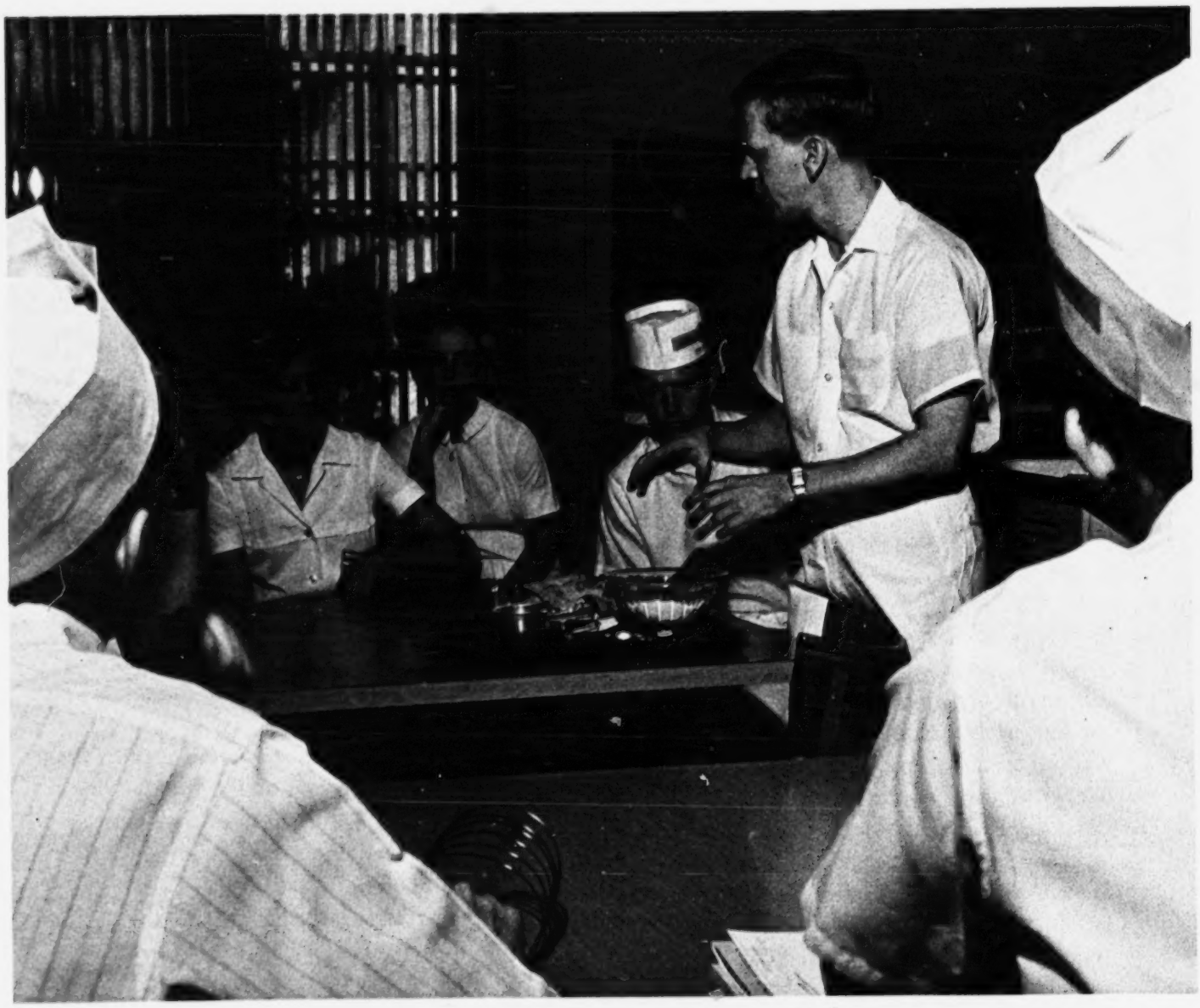
c. Job placement for graduates that will lead to further on-the-job training and future advancement.

3. Matters relating specifically to the operation of adult extension or preparatory programs:

a. Preparatory courses for out-of-school youths and adults who want to enter the field of quantity food preparation.

b. Extension courses for workers in the field—courses that will be profitable both to them and to the industry as a whole.

To carry out its responsibilities, the advisory committee will need to consult the detailed information that was gathered by the planning committee about the personnel requirements of food service establishments in the area.



Classroom demonstration of food preparation principles

Part II

PLANNING THE PROGRAM FOR HIGH SCHOOL YOUTHS

Promoting the Program

Programs offered under terms of the Vocational Education Act of 1963 [5] should prepare students for employment in a wide variety of jobs. The Act embodies the philosophy that all citizens must have access to education and training that is of high quality and realistic in terms of opportunities for gainful employment. Occupational training should be provided for young people attending high school and on a full-time basis for persons who have dropped out or completed high school. Programs should serve those who are at work and need training or retraining to hold their jobs or to advance in employment. Special programs may be developed to meet the needs of those who have academic or socioeconomic handicaps. Training may be given in comprehensive high schools, specialized vocational-technical high schools, technical high schools, junior and community colleges, area vocational-technical schools at both the secondary and postsecondary level and in 4-year colleges and universities.

The food trades program for youths in high school is essentially preparatory. Success of such a program will depend upon its ability to attract young people, the quality of its instructional program, and the ability of its graduates to get jobs.

There are two phases to the promotion of any preparatory food program:

1. Securing the cooperation of labor and management.
2. Encouraging young people (through publicity and good public relations) to take advantage of career opportunities in the food service industry. Parents should be made aware of the opportunities available.

[5] Public Law 88–210, The Vocational Education Act of 1963.

Experience in food preparation training shows that success in attracting good students to the program depends upon how thoroughly job opportunities are explained to young people and their parents. The success of graduates in the field will help interest and attract good students.

Securing the Cooperation of Labor and Management

Securing industry's cooperation is one of the most important functions of the advisory committee. Industry should support the high school preparatory program by providing cooperative part-time employment opportunities during the last months of the training period. A satisfactory part-time job can do much to point up the opportunities in the field. The school should consider placement and follow-up of its graduates as a continuation of the training program. The program's coordinator and the prospective employer should jointly develop plans that will result in placing the graduate in a position that not only provides adequate economic return but also is commensurate with the level of his training. The graduate should be familiarized with the steps by which promotion may be achieved. Cooperative training should be carefully planned and school officials and employers should cooperate in this phase of the program to make certain that graduates will know the promotional possibilities of each job. Such knowledge is essential in order to interest young people in following careers in food service.

Encouraging Young People To Enter the Field

If the advisory committee fulfills its responsibilities of obtaining the cooperation of labor and management, the second phase of the promotion

program will be easier.[6] For example, the committee can request employee-employer associations to explain to young people and their parents what opportunities are available in the food field. This may be accomplished through:

1. Inviting industry and labor to participate in school career days.
2. Inviting students to go on field trips to food-service establishments.
3. Furnishing up-to-date information to the school counselors.
4. Inviting industry to participate in the local parent-teacher meetings.
5. Getting speakers from labor and management to address student assemblies, service clubs, parent-teacher meetings, and other service groups.
6. Providing movies for assemblies and news articles for bulletin boards.

Developing the Curriculum

No one core of vocational subjects is generally accepted in the food preparation training field. Choice of vocational subjects is the responsibility of the program administrator working with the advisory committee. The subject-matter content, however, should be developed by the instructional staff in cooperation with the head instructor, who acts as coordinator for the instructional staff in discussions involving the school and the advisory committee.

In many instances there are materials already developed which may be appropriate for the program or may be modified to meet the objectives of the program; for example, *Quantity Food Preparation—A Suggested Guide,* prepared by the U.S. Office of Education.

Any development of the vocational part of a curriculum should include the following considerations:

1. Statement of the objectives.
2. Program of studies.
   a. Trade skills and practices.
   b. Related instruction.
   c. General subjects.
3. Related activities.
4. Evaluating the program.

[6] U.S. Department of Health, Education, and Welfare. *Organization and Effective Use of Advisory Committees.* U.S. Government Printing Office, 1960, pp. 10–17.

Objectives of the Course

The primary objective of the food trades program is to train persons for useful employment in the food preparation industry. More specific objectives may be to:

1. Provide high school boys and girls with training in the fundamental skills, knowledge, and attitudes to qualify them for beginning levels of employment.
2. Raise the standards of the food service industry by providing a source of trained personnel.
3. Raise the prestige of the food service worker by offering training recognized by industry and community.

Program of Studies for Trade Skills and Practices

All instructors responsible for teaching should participate in developing the program content and instructional methods. It is extremely important that agreement among the teachers be achieved at the committee level so that all vocational instruction in the course may be coordinated.

In developing the trade content of the course, instructors may consider the following:

1. Instruction in the basic principles of food preparation. These principles are evolved by classifying foods according to their composition and/or place on the menu:
   a. Meat, poultry, fish, gravies, sauces, dressing.
   b. Eggs, cheese, sandwiches.
   c. Legumes, vegetables.
   d. Salads, salad dressing.
   e. Breads, batters, cereals, pastes, pastry products.
   f. Cakes, frostings, icings, syrups, cookies, fruits, pies, puddings, sweet sauces.
   g. Appetizers, beverages, soups.
2. Each food group within this classification can be further subdivided into types of products based on:
   a. Common ingredients.
   b. Methods of cookery. Example: Soups—stock, cream, puree. Each type of product is subject to a job breakdown to formulate basic procedures which will enable the student to learn the principles involved in preparation. Thus, the common menu name of any item becomes merely a variation of one of its basic types.

3. A good menu is the successful combination of food items to form a satisfying meal for the guests. The menu is the basis for planning the day's production and purchasing.
4. All menu items are assigned to certain areas in the kitchen depending on the preparation involved. These areas are the units of work referred to as "stations." Examples:

Appetizers—

Juices.	Pantry station.
Fruit combination.	Pantry station.
Vegetable combination.	Pantry station.
Seafood combination.	Cold meat station.

5. The number of work areas in any kitchen will depend on the scope of the menu, the size of the kitchen, and the number of students.
6. A basic course should provide instruction in all the food groups, but the stations should be limited to those commonly used by local industry.
7. Subject matter should be clearly defined before any training program is started. Basic material for lesson plans for at least one term should be prepared in advance.
8. Some principles of food preparation scheduling and of planning menus should be taught.

Methods of Procedure for Trade Practice

Training programs in the food trades may begin with short courses in cooking small quantities. These courses are usually conducted in a demonstration kitchen. The kitchen is generally equipped with a stove, worktables, refrigerator, broiler, sinks, scales, mixer, chopper, slicer, pots, pans, and small utensils and food preparation implements. A portable demonstration mirror should be placed behind the worktable. The seating for students should be elevated to permit unobstructed viewing of the demonstrations. Short courses may be omitted at the discretion of school officials.

In the practice work situation, students should be made aware of the relationship of each job to the whole operation. Practice work should simulate an actual operation at a work station. Students should be rotated to different work stations every two or three weeks. Teaching should be based on a complete menu for a minimum of 50 persons.

Developing skills is one of the main objectives of the food trades program. Even though production is both important and beneficial, it should not always be the first consideration. Emphasis on teaching makes it possible for instructors to provide opportunity for students to have the variety of preparation experiences necessary for complete training.

Once the instructional plan has been adopted, the problem of coordinating production and teaching must be solved. Ideally, teaching and production should be considered of equal importance. It is well to proceed on this assumption. At times teaching may become subordinate to production and vice versa.

Production schedules should designate a specific time for evaluating the completed food product. Preferably, this should be done on a class rather than on an individual basis so that all members may profit from the instructor's judgment. The evaluation may take the form of setting up a sample plate for each item prepared, with careful observation, testing, and a discussion by instructor and students. This process will serve to:

1. Acquaint students with the appearance, taste, feel, and consistency of texture of a standard food product and with any consumer reaction noted.
2. Acquaint students with inadequate preparation and its cause.
3. Demonstrate the size of portions.
4. Illustrate the method of set-up or service.
5. Familiarize students with new or unusual food items and combinations.

Food preparation students are expected to learn methods of preparation and to develop skills and good judgment. Production schedules should allow time during and after preparation for the evaluation of procedures to permit students to associate cause and effect.

Related Instruction and General Education

A sound food trades training program should be planned to include trade-related subject matter as well as the required high school subjects. Time allotments will be determined by local school officials. Quality of the teaching of trade related subjects should compare favorably with

similar academic subjects in a conventional high school.

The objective of vocational training programs is to qualify graduates for immediate employment after graduation. This objective makes trade practice and related work a major part of the curriculum. However, the curriculum planning committee should not lose sight of the fact that graduates should be prepared to be good citizens as well as capable workers. Food trades training programs should be planned to make it possible for the student to develop into a well-rounded citizen.

Related Activities

Experiences other than those included in the school curriculum round out the training program. These experiences may include:

1. Taking field trips to markets and to various food industries.
2. Viewing demonstrations by visiting chefs and skilled persons from the food industries.
3. Viewing educational films and filmstrips about food preparation and related subjects.
4. Attending organization meetings of local food trades groups.
5. Reading assignments in food trades magazines.
6. Working part-time during the last months of training.

All of these experiences provide students an opportunity to increase their knowledge of the entire food industry. Outside contacts also prove to students that the industry is interested in them and their progress.

Evaluating the Program

Essential in determining the effectiveness of this training program is the development of specific, realistic evaluative criteria. The full cooperation and coordination of the school administrators, members of the advisory committee, and other individuals with related responsibilities and interests in the program must be effected in developing these essential criteria. The following are representative of pertinent criteria:

1. Is the facility properly equipped to train the students efficiently?
2. Is the curriculum developed to meet the needs of the students and industry?
3. Is the program holding the students' interest and holding dropouts to a minimum?
4. Are more students being attracted to the program? If not, why?
5. Are the objectives of the program realistic and are these objectives being met?
6. Is there a working procedure (such as a team approach) which provides for periodic checks of both students and graduates, to measure their progress and determine their deficiencies?

Determining Training Facilities

Responsibility for providing training facilities rests with the school system. The school should use the advisory committee members as technical experts on space allotment, equipment selection, procurement and arrangement, and training facility layout.

Equipment and Layout

Facilities must be carefully planned to cover the phases of food production and service work that are to be taught. They should provide for an operating situation where food can be purchased, received, stored, prepared, served, and controlled. The number of customers should be from 50 to 100 or more in order to acquaint students with the techniques of handling food in quantity. The size of the area and the amount and type of equipment will depend to a large extent on the scope of the program and the type and number of workers needed in the geographical area. Regardless of size and amount of equipment, the program should be flexible enough to allow for instruction in all phases of food trades occupations. Basic equipment for a complete laboratory-kitchen will include:

1. Kitchen:
   a. Hot food area:
      (1) Surface cooking (range).
      (2) Oven.
      (3) Broiler.
      (4) Steamer.
      (5) Steam-jacketed kettle.
      (6) Steam table or electric hot food counters.
      (7) Bain-marie.
      (8) Work tables.
      (9) Sinks.
      (10) Utensil rack.
      (11) Mixer.

(12) Chopper.
(13) Slicer.
(14) Refrigerator and/or freezer.
(15) Pots and pans, small utensils.

b. Cold food section:
(1) Refrigerator.
(2) Ice bain-marie (optional).
(3) Work tables.
(4) Sinks.
(5) Coffee urns.
(6) Pans and small utensils.

2. Bakeshop:
a. Oven.
b. Pastry stove.
c. Proofer.
d. Work tables.
e. Sink.
f. Mixer.
g. Steam-jacketed tilt kettle.
h. Storage bins.
i. Scales.
j. Dough divider.
k. Refrigerator and/or freezer.
l. Pans and small equipment.

Preferably, each work unit (station) should be a well-defined area in the kitchen containing all the equipment necessary for the specific jobs to be done there. The program's scope and the school district's financial ability may not warrant duplication of large equipment such as ovens, sinks, mixers, and refrigeration. In this case, stations can be set up as definite work areas with all the necessary small equipment and utensils. The large equipment should then be placed in the most convenient location to serve all stations.

Procurement of Equipment

The school authorities need to determine whether gas, electricity, or other fuel will be used for the cooking and baking. Ideally, a training center should have some equipment of each type. School authorities should consider:

1. What is available in the locality.
2. What can be made available in the building with reasonable installation charges.
3. What the operating expense will be.

Food industry representatives on the advisory committee are usually best qualified to determine the size, weight, performance record, and special features necessary for each piece of equipment. They are also qualified to choose among food service equipment dealers in the area, to evaluate original purchase price, special discounts, and installation charges, and to designate future maintenance service. The committee may also be in a position to solicit industry's cooperation to donate part or all of the equipment. In any case, the committee should narrow the potential source to two or three manufacturers. A list should be prepared showing at least three different models for each major piece of equipment, with the advantages and disadvantages of each clearly stated. The school authorities can then make the final selection from the committee's list in accordance with the school's purchasing policies.

Length of the Course

The length of time devoted to a training course in food preparation should be determined by the local school officials after consulting the State director of vocational education. Two years should be the minimum length for a high school program. Programs may extend into the post high school or community college level. The skills and knowledge of employed workers may be extended through supplementary training.

The exact number of hours devoted to trade practice each week should be determined by the local school officials. Local school policy will be one determining factor. Generally, the kind of program and the amount of classroom study will be the deciding factors. If the school receives financial assistance from Federal vocational education funds allotted to the State, the State vocational education plan must be followed. In any case, no plan of study should be developed until the requirements of the State vocational education plan have been studied.

Under a State vocational education plan, the clock-hours devoted to trade practice will vary. Standards that assure soundness and quality of instruction designed to fit individuals for an occupational objective suggest that the program—

(a) Will be based on a consideration of the skills and knowledge required in the occupation for which the instruction is being provided and will include a planned logical sequence of those essentials of education or experience the student must have to meet occupational requirements.

(b) Will be sufficiently extensive in duration and intensive within a scheduled unit of time to enable the student to develop competencies necessary to fit him for employment in the occupation or occupational field for which he is being trained.

(c) Will combine and coordinate related instruction with laboratory, cooperative work, or other occupational experience which is appropriate to the vocational objective and is of sufficient duration to develop competencies necessary to fit him for employment in the occupational field for which he is being trained.

Requirements of the occupation will determine what proportion of the student's time should be spent in actual food preparation and service. If the school does not receive Federal funds, then the allocation of time is subject only to State and local regulations. The food trades training program usually requires half of the school day, with the remaining half devoted to general education.

Serious consideration should be given to the amount of time actually allowed for trade practice work. A 3-clock-hour session usually results in approximately 2 or 2½ clock-hours of experience in actual food preparation. The beginning of the session must be devoted to assignments and instruction, and the end of the session to cleaning up the work space and equipment. The time available for actual food preparation limits the production of many food items. To overcome this drawback—when the trade practice period lasts only 3 hours—some teaching may be eliminated or, at least, limited. The plate set-up and evaluation of the finished product will perhaps suffer most from this short practice period.

Some schools alternate trade practice and theory and general education subjects on a weekly basis, while others assign alternate days to instruction in trade practice and to classroom instruction. If these methods of instruction are followed, an equal amount of time is allotted to both trade practice and theory. Instruction is more effective under this system because it makes possible uninterrupted class and practice work.

The Instructional Staff

Education

To be employed in the public schools of a State, an instructor must hold a general State certificate or one that is valid for the subject taught. Standards for certification vary among States. In general, the vocational instructor must meet minimum requirements for a teaching certificate in the State where he is employed. Instructors in a food trades program must also meet minimum requirements set up in the State plan for vocational education. These regulations include:

1. Minimum educational background.
2. Minimum occupational experience.
3. Minimum preparation for teaching.

The problems of certifying trade teachers are increased in those local schools or States that require a college degree for all high school teachers. The majority of competent chefs, qualified to do trade teaching, will not have a baccalaureate degree. Thus the procurement of qualified teachers becomes a real problem. Temporary or emergency teaching certificates may have to be granted to persons who do not meet teacher requirements. These certificates must be renewed at stated intervals in accordance with the State certification code.

In most instances, if an instructor has the minimum educational background and sufficient occupational experience, he can qualify for a conditional temporary teaching certificate. He will be granted a permanent teaching certificate when he has met all teacher-training requirements and has completed the required number of years of successful teaching.

Occupational Experience

When Federal and State vocational education funds are involved, the minimum requirements for occupational experience will be set by the State plan for vocational education. Some States give a test to determine trade proficiency. Other States base the requirement of occupational experience primarily on length of employment. School officials should consider the advice of representatives of the food service industry when determining whether the applicant has:

1. A thorough knowledge of his trade, including fundamentals of nutrition.
2. An interest in teaching young people.
3. The type of personality that provides leadership and inspires pride of workmanship.
4. High moral standards.
5. An open mind, alert to new trends in the industry.

6. Ability to work with industry.
7. Ability to organize teaching material and prepare teaching outlines.

Three sources of qualified instructors are:

1. Chefs and cooks presently employed.
2. College trained people with experience in quantity cookery.
3. Retired chefs and cooks.

Some retired chefs and cooks are willing to teach because this affords an opportunity to continue in their trade without the pressures of competitive industry. In some communities or States, this source cannot be utilized because of an upper age limit for employment of trade teachers. Every effort should be made to utilize the talents of well-qualified chefs and cooks who are able to make valuable contributions to a food trades program.

It is more difficult to attract men and women working in the field. School systems are seldom able to offer as much remuneration as these people command in industry. If the school can provide an adequate salary, it will have no problem attracting good teachers. If it cannot provide an adequate salary, it may work out a cooperative plan with industry for employing instructors on a part-time basis. The medical and legal professions have been cooperating in this way with colleges and universities for many years.

Quantity food personnel with college training can be used successfully if they meet the vocational education requirement as to type, length, and quality of occupational experience which has led to a thorough working knowledge of the trade.

Getting instructors is much easier if the school system provides adequate training facilities, well-selected students, opportunities for cooperation with industry, and adequate salaries.

Training for Teaching

Teacher training programs are provided by most State boards for vocational education and teacher training institutions. A school should assist its new trade teachers in meeting teacher certification requirements as soon as possible. The teachers themselves can use summer vacation periods to continue or complete teacher training. After they have completed teacher training requirements, the school should arrange with the food trades industry to employ the teachers during vacation periods in order to keep them up-to-date in trade practices. Instructors must be familiar with the problems, trends, and new developments in industry if their teaching is to be effective. They should be encouraged to participate in trade association functions where they will be in contact with the field. Trade magazines and current text materials should be made available to both instructors and students.

Number of Instructors

The number of instructors needed will depend on the scope of the program and the number of students enrolled. The number of students one instructor can handle successfully during the trade practice period will depend somewhat upon the extent of the production and the layout and adequacy of the training facility. A minimum of 10 and a maximum of 20 students for each instructor can be used as a guide to determine teaching loads. The head instructor's teaching responsibilities should be determined in the light of his other responsibilities. In addition to teaching, he will usually be charged with the responsibility of coordinating the trade training program within the school and with the industry. Student selection is usually another responsibility of the head instructor.

Part III

OPERATING THE PROGRAM FOR HIGH SCHOOL YOUTHS

Recruiting Students

The first phase of operating the program will be the recruitment of students. Vocational counselors, including those in junior high schools, must be informed about the food trades industry. The counselor should aid the student in evaluating this information in the light of the student's own interest, capabilities, and aptitudes. Recruitment activities may include:

1. Making an effort to enroll young people whose tests reveal high interest and aptitude in food service work.
2. Taking referrals from other eligible schools.
3. Urging advisory committees to assist in developing criteria for student selection.

Selecting Students

Student selection should result from the cooperative efforts of the vocational counselor, the program's head instructor, and the members of the advisory committee. Homeroom teachers, teachers of homemaking, and other teachers on the staff can also help in this selection. Each student should be considered individually to assure proper evaluation of his qualifications. The following are suggestions for desirable or necessary characteristics:

1. *Health:* Good health is a prime prerequisite for persons entering food trades training. All persons handling food should secure health certificates. Many States require health certificates; others require annual physical examinations.
2. *Age:* The minimum age will depend to some extent on the plan for training and the law regulating employment in the area. Whatever the plan for training, the graduate should be *old enough* and *mature enough* to qualify for immediate employment in industry. Usually this means that the student, when he begins training, should be at least 15 years of age—16 if in a 2-year program.
3. *Sex:* Either boys or girls may qualify.
4. *Educational qualifications:* The student must be able to profit from the instruction. Completion of the ninth grade should be required for preparatory training.
5. *Personal qualifications:* The subjective standards used for selecting a good worker in food preparation are at present the best guide for selecting a student for training. The head instructor, since he is familiar with the requirements of the field, should make the evaluation on the basis of how well the applicant measures up regarding the following:
   a. Interest in food.
   b. Ability to get along with people.
   c. Willingness to work.
   d. Pride in workmanship.
   e. Cleanliness.
   f. Orderly work habits.
   g. Initiative.
   h. Success in any previous exploratory courses.

The student's previous school records should be available to the selection committee for determining some of his qualifications. The committee might also have the applicant take appropriate aptitude tests, which are valuable as a guide to student selection. Tests for food preparation personnel are available through the public employment service.

Purchase and Economical Utilization of Food

The Revolving Fund

The plan for purchasing food and supplies, and for utilizing the finished food product on a self-sustaining basis is very important. Since the

practice material and food are both expensive and perishable, a plan to recoup the expenditure must be formulated. Some programs utilize the school cafeteria or a special lunch room as a sales medium; other schools charge a laboratory fee. Regardless of the plan, the income realized should be sufficient to permit the purchasing of each day's supplies. The food may be purchased through regular school channels but from a separate fund. Under this plan students will gain experience in purchasing and receiving, and the school will continue to receive the benefits of discounts allowed to educational institutions. The most common practice is to set up a revolving fund. The board of education provides a designated amount, all bills incurred are paid from this fund, and all income from food sales is put back into the fund. Accounting for the revolving fund and the daily receipts deposited gives the students practice in both financial and food cost accounting.

Methods of Utilizing the Finished Product

The two most common practices for using the finished product are:

1. The food is prepared for, and served in, the school cafeteria and the faculty lunchroom. The food trades department is responsible for operating these units.
2. The food is prepared and sold to the school cafeteria. The operation of the food trades department is completely independent from the cafeteria operation.

In each instance, the food, particularly bakeshop items, may be sold to school personnel and outside customers through "take-home service" and may also be prepared for special functions. If food products are sold to the public, it is essential that the advisory committee be fully informed. It would be desirable to have the advisory committee involved to prevent criticism by local bakeshops and/or restaurants regarding competition.

Certain limiting features are common to both plans:

1. The need for only one meal a day except where sufficient night-school enrollment warrants more. This limits the number of trade practice classes.
2. The need for limiting the types of food to those commonly served in school cafeterias and teacher lunchrooms.
3. The necessity of serving low-cost items for students in the cafeteria.
4. The necessity of serving low- to moderate-cost items in the faculty lunchroom.
5. The necessity of providing ready-to-serve items. (This arises because of comparatively short lunch periods.)

These factors all limit the learning experiences available to the food trades student. In addition, each plan has particular disadvantages.

In the first plan, safeguards should be set up to prevent production pressures from subordinating instruction and student evaluation. Sufficient time must be allowed to permit completion of both instruction and trade practice. Trade practice and instruction should be planned so that neither is subordinated or neglected.

The second plan may produce difficulties in production planning. Since the operation of the food trades department is independent from the cafeteria operation, the instructor is not always free to choose items that will provide the kind of experience that the student may need to round out his training. Occasionally, this difficulty may be worked out by close cooperation between the two departments, but usually the teaching becomes subordinate to the production. The plan has the added disadvantage that students never see the entire operation. Students are trained in food preparation but not in arranging and serving the food.

Use of Supplementary School Facilities

The facilities of the school cafeteria for food preparation should, if possible, be utilized for practice. In spite of the fact that only certain types of food can be prepared, many of the basic procedures can be taught, and certainly students can develop many of the manipulative skills. When school cafeteria facilities are utilized, they need to be supplemented with a table service dining room. The faculty lunchroom is not always the answer since most faculty members are interested in low to moderate cost food, quickly served. In some areas, a regular patronage of non-school clientele for lunchroom and dinner meetings can be developed, but it should be undertaken only if the advisory committee agrees. When undertaken, this type of patronage can be promoted by faculty members and businessmen through their

membership in local trade and professional associations. If the quality of the food and service is good and the dining facilities are attractive and comfortable, this service should be a convenience to the people in the area. Non-school clientele can be served the more expensive menu items, more elaborately garnished; thus another kind of student experience is provided for.

Care must be taken in presenting the plan described above so that industry does not feel the school is competing with regular business establishments. It should be the school's philosophy not to see how much business it can promote, but rather to get sufficient volume to enable instructors to develop a complete food training program. Service to non-school clientele for luncheon and dinner meetings can also be a means for enhancing community interest in the school and its activities. Capital investment in good training facilities and the daily operating expenses for a quality food preparation program are high. The facilities should be used efficiently in order to justify the initial investment. This can be done only where the enrollment is large enough to provide continuous day classes and a full-time evening program. The completeness of training facilities will depend to a great extent on the school system's ability to finance such a program. Unless adequate facilities are available, it is doubtful that the training provided would be effective. A program should not be initiated until proper facilities and qualified instructional personnel are available.

Evaluation of Student Progress

Students and instructors should maintain a daily progress chart. This chart should give the name of the product and the job procedure used in its preparation. The instructor should use it regularly to determine daily assignments. Each time a student returns to any station, the instructor should assign him more responsibility or a greater workload. Periodically, and at the end of the training period, the head instructor should analyze each student's training chart.

Deficiencies in training must be identified and remedied if training is to be effective. Deficiencies may result from:

1. Incomplete curriculum planning.
2. Poor production planning or scheduling.
3. Limitation of training facility to provide opportunities for thorough occupational experience.
4. Limited trade practice.
5. Poor teaching.

The curriculum can be evaluated by following up graduates after placement. Employers will be quick to report training deficiencies. The advisory committee should decide whether these deficiencies can be corrected or whether they are a result of the program's own limited scope.

Arranging for Cooperative Part-Time Employment

Cooperative part-time employment in food service establishments is recommended for students in preparatory courses in this field, especially during the last year of their high school course. Such employment is not only desirable but is essential if these students are going to have an opportunity to experience actual food trades practices while still in school. This is also an excellent way to have them discover that there are real opportunities in the food field. The development of placement opportunities for a cooperative program can be a responsibility of the advisory committee and the trade association.

In a cooperative part-time program, the student-learners attend school halftime and on-the-job training halftime. The school instruction includes occupation-related subjects as well as essential general education subjects. Although the school administrator is responsible for the entire program, on-the-job training is under the employer's supervision and direction.

The in-school and on-the-job phases of the program are arranged to alternate in a manner convenient to both school and employers. The alternating phases, however, must be identical for all the class members regardless of where they work. Plans for alternating school and work may be as follows:

1. Half the day at school, half the day at work.
2. A day at school, the next day at work.
3. One week at school, the next week at work.
4. Alternating over longer periods.

On the average, a cooperative student-trainee attends school one-half of the time of the regular school sessions, regardless of the plan of

alternation between school and work. The employment periods should not be more than one-half the regular working hours of the occupation, and, in no case, less than 15 hours per week. The working time and compensation should always be in accordance with State and other legal employment requirements and regulations.

Employers and school authorities must use discretion when scheduling student-trainees for their work periods, in order to achieve a proper balance of school and work. A safe rule is to limit the number of working hours so that the combined time at school and at work in any week does not exceed the legal work week.

A cooperative plan between school and employer frequently makes it possible for two students to share one full-time job, alternating weekly between school and job. Such an arrangement provides the employer with the equivalent of a full-time employee and provides the student with a full week of learning under the variable conditions of the business establishment. Some establishments will find it possible to use students on weekends with only a slight rescheduling of their full-time personnel.

A concentrated effort should be made to place all students in food service jobs during the summer. Students can serve as replacements of regular employees who are on vacation.

The School's Responsibility

A coordinator should be responsible for placing students in part-time employment. This gives him the opportunity to match the job with the student's qualifications. The student should be instructed in job deportment. He should understand that his success or failure may influence not only his permanent placement but also the status of the school program.

The coordinator should visit the place of employment regularly and talk to both student and employer, making his first visit as soon as possible after employment has started in order to solve any beginning difficulties of the student-trainee. Periodic visits to observe student progress will demonstrate the school's continuing interest in the program and usually results in a more satisfactory response by both student and employer. Periodic visits will also enable the coordinator to recommend changes in the program to meet the present needs of the job. Successful part-time employment frequently leads to a full-time position for the student after graduation.

A vocational course in food trades training does not turn out a completely trained craftsman. The time allotted to trade work and the amount of practical experience are not enough to accomplish this. A 2-year program of 15 hours of practice work a week means that the student will have completed 1080 hours of this work, the equivalent of 135 days, or approximately 4 or 5 months of training. The student completing a 3-year program will have the equivalent of 201 days, or from 6 to 7 months of training.

In a vocational training program the faculty can select work experiences and move students through these experiences under systematic supervision. Experience shows that this is an efficient method of training students in food preparation. Vocational training prepares the graduate for beginning levels of employment and under proper conditions enables him to make more rapid progress in achieving superior skill after he is employed.

Complete information on the organization and operation of cooperative part-time programs is available from the local and State vocational education authorities.

Results of Cooperative Training

Employers and schools that plan and work together in a cooperative training program can raise standards of service. This working together can at the same time stimulate workers to continue in food preparation fields and improve their skills. Higher standards of service, job stability, and improved skills will all benefit employers, employees, and the public.

Certificate and Diploma

A trade certificate should be awarded to a student who successfully completes the trade requirements of the curriculum. This certificate may indicate the job title and level of proficiency. If the student qualifies for high school graduation, he will then receive a high school diploma simultaneously with his trade certificate. A high school diploma is not required to complete trade training, but it should be encouraged since it tends to improve the student's chances for future advancement.

Placement of Graduates of Courses in Food Preparation

Graduates of trade preparatory or part-time preparatory courses are usually placed in suitable jobs by the school. The school should assist the graduate in finding employment where he can best use his abilities and training, and where he can progress on the job. The teacher should follow up the student during the first few months after graduation and assist him in adapting to work requirements.

In the school laboratory students apply sound principles of food preparation

Part IV

EMPLOYERS' RESPONSIBILITY FOR ON-THE-JOB TRAINING OF EMPLOYEES

Need for Continuation of Training After Employment

The food industry has already agreed that young people must be attracted to the field and induced to continue in it. This is evidenced by the money that industry has spent in promoting the food trades field as a career. Since the school cannot do the complete training job, industry must accept responsibility for continuing this training to further the employees' potential. The value of any worker to an organization depends not only on his past experience but also in large part on what he knows about his opportunities for growth and advancement. Thus, every organization should have a training program for its own personnel, adapting to its own needs each worker's past experience and training.

The success of the high school training program depends upon the graduates' being accepted and integrated into the industry. Once the high school program has become established, the advisory committee should then assist the school in maintaining the program so that it will continue to produce graduates acceptable to the industry. In short, it should always work actively for the benefit of graduates.

Selecting and Using Training Centers for Graduates

Initially the advisory committee should act as liaison between the school and industry to encourage local establishments to accept graduates into their organizations and provide them with well-rounded on-the-job training and advancement opportunities. The end result of a more efficient work force and lower turnover will convince other employers of the wisdom of this procedure. To insure successful on-the-job training, the selected food service establishment must have:

1. A competent staff, interested in training young people and willing to do so.
2. A progressive management willing to underwrite the immediate expense of training, in both time and money, to insure future benefits of trained craftsmen for themselves and the industry.
3. Good working conditions.
4. A policy of promotion from within.
5. A sound remuneration policy to give the trained worker an advantage over the untrained worker.

Developing the Climate for On-the-job Training of Graduates

Employer interest in on-the-job training is not of itself enough to insure its success. It is difficult to list in detail all important aspects of this training, however, the program should include some of the following features:

1. The advisory committee should encourage cooperating establishments to develop organization charts which will show the graduate where he fits into the picture and how he can progress.
2. The employer should be encouraged to write job descriptions for each position on the chart. The employee can be given a description of his job to acquaint him with the full scope of his duties and to define the level of skill which he must achieve before he can look forward to promotion. The food trades faculty can be used to help the establishments develop these organization charts and job descriptions.
3. If possible, a definite time interval should be set for the immediate supervisors to rate trainees for merit or progress.

In the beginning, merit ratings should be given every month. As trainees gain self-confidence and

skill, ratings can be given every two or three months. Each trainee should be given an annual review of all his merit ratings. At this time, it can be determined whether he is ready for promotion. The trainee must understand that advancement is not always possible as soon as he is qualified. A vacancy in the next higher job must exist or be anticipated before he can be promoted or promised a promotion. Provision must also be made to replace him in his present position. In the meantime the employer can compensate for the waiting period by giving the worker an opportunity to assume the responsibility of the new job as "day off" or "vacation" relief.

When the worker's capabilities do not warrant immediate or further promotion, ways can be developed to afford him continuing job satisfaction. This can be done by:

1. Pay increases on the basis of tenure and satisfactory service. (This is possible only if the worker has not reached the top wage for the job.)
2. Enhancing status through a new title, more favorable hours, more days off, and other fringe benefits.
3. Establishing job importance.
   a. Relation of worker's own job to the whole.
   b. Added responsibilities on the skill level.
4. Encouraging the employee to enroll in extension courses which might prepare him for work requiring greater skill and responsibility.

Students and instructor together evaluate their products

Part V

PROMOTING AND CONDUCTING ADULT CLASSES

Adult courses are divided into two general categories:

1. Preparatory courses for out-of-school youth or adults who have no previous training or experience in the food trades but who desire to prepare for initial entrance. These courses, usually of relatively short duration, provide only introductory training and determine the student's suitability for the work.
2. Extension courses that provide valuable information and enable food workers to improve their abilities in their present jobs or prepare them for advancement.

Preparatory and extension classes for adults may be conducted at any time during the day or evening convenient for both students and school. The length of the course depends upon the amount of training required to meet the training need.

For both extension and preparatory courses, ability to profit by the instruction is required for enrollment and continuation in training.

Adult Preparatory Courses

A common practice in the food industry is to employ inexperienced and untrained youths and adults and train them on the job to perform certain services in food preparation and service, often without an organized plan for training. The weaknesses of such a program are obvious both as to quality of services obtained and instability of the working force.

The purpose of adult preparatory courses is to provide a suitable and partially trained group of persons who will become available for employment at specific jobs when they have completed their training. Pre-employment training has the advantage not only of providing persons who have a certain degree of skill when employed but also of providing information on their suitability for the jobs before employment.

Some essential methods, safeguards, and characteristics in the planning and operation of adult preparatory courses are:

1. Courses should be established only when there is rather definite assurance that enrollees will be employed after successfully completing the training.
2. The advisory committee should be fully aware of the provisions of the Vocational Education Act of 1963 and the Manpower Development and Training Act (MDTA) of 1962. Under the Acts all vocational education and manpower programs are subject to periodic review in the light of current and projected manpower needs. The 1963 Act also emphasizes the need for cooperation with the public employment service. The potential needs for additional food service workers can be obtained from the local public employment service office.
3. The courses should be open to any out-of-school person who meets the requirements of the industry as to age, sex, health, and other personal qualities, whether presently unemployed or whether employed in another occupation.
4. Recruitment of students may be through the local public employment office, employers, and the general public.
5. The course should be as short and intensive as possible, since its purpose is to provide only sufficient initial training to enrollees to make them employable. The initial training may be supplemented, after employment, by on-the-job training and by extension courses.
6. Content of courses should be consistent with their objectives and should be planned with

the assistance of the advisory committee or of a subcommittee of persons experienced in the occupation.

Adult Extension Courses

Adult extension courses take three general forms:

1. Short-term remedial courses designed to meet a specific need.
2. Long-range training composed of units of work so related as to encompass the entire food trades program. This is designed for up-grading workers in the field who have not had the advantage of formal training or for supplementing their pre-employment training.
3. Advanced training based on special aptitudes and interests of students and designed to develop more advanced skills.

Short-Term Remedial Courses

Short, remedial extension courses for adults may be conducted at the request of employers and workers. The primary objective of these courses is an immediate improvement in job efficiency. They may include:

1. Service training for waitresses, waiters, bus boys, counter servers, and the like.
2. Dish-washing machine operator training.
3. Sanitary food-handling training.
4. Training in special types of cooking.

Hours for offering courses are determined by:

1. The hours best suited to the majority of the prospective students and their employers.
2. The hours when faculty and school facilities are available.

Industry representatives requesting or sponsoring the classes must determine whether workers are to be paid for time in class participation, or whether training will be done on employee's time. As a rule, no tuition is charged for these classes when conducted as part of the local public educational program, but at times a charge is made for enrollment. If State law allows private contributions to public institutions, industry may donate funds. These funds may be designated for the food training program for adults but must be contributed to the board of public education having jurisdiction over the program's administration and operation. Students may be required to pay for material used and for food prepared for and eaten by the class.

The length of the course varies with the subject matter and may range from 10 hours upward. The length of each session and the number of sessions a week may be arranged to meet the convenience of students. The length of each session depends on the subject matter, the method of presentation, and the maturity and interest of the students, as well as the location of the school relative to working places and enrollees' homes. A 2-hour period is preferable, and 1 hour is the minimum length to be considered. If class material is presented in lecture form, then the period may be only an hour. Class participation is always a goal in teaching any type of class. Practice work increases the student's interest span, and the class period may be extended to two or three hours. In any case, interest will last longer if the teaching method includes lecture, demonstration, and discussion.

The training session must be of sufficient length to make it worthwhile for students to attend, particularly if transportation facilities to and from the school are poor.

A remedial class should include:

1. A review of basic principles or techniques with an explanation of the "why" and the "how."
2. Demonstration and practice of techniques.
3. A discussion period.
4. An evaluation of progress. However, a formal test, quiz, or examination should be avoided.

Long-Term Extension Training

Long-range extension classes logically may evolve from short-term remedial classes. The goal of the long-range program is to offer a complete course in food trades training. This training would be given over an extended period of time at hours which do not conflict with regular employment or with the day trade program. The hours each week may range from 2 to 6, on a semester basis, and usually continue throughout the school year. The curriculum is composed of definite units of work with a time limit for each unit. For example:

1. Commercial cooking: 4 hours a week, two 18-week periods.
2. Pastry: 4 hours a week, two 18-week periods.
3. Pantry work: 4 hours a week, one 18-week period.
4. Waitress work: 2 hours a week, one 5-week period.

These units of training may be offered one at a time, or in any combination that can be managed by the staff and the facilities. Since some units will be more popular, they will need to be offered each semester. The number of enrollees must be sufficient to warrant use of the instructor's time.

Each student is treated on an individual basis. The instructor determines the part of the program best suited to a student's need, based on his or her past experience. From 80 to 90 percent of the time in extension classes of this type is devoted to shop or practical work; the remainder is devoted to related instruction. The related instruction may include such subjects as chemistry of foods, food cost, trade mathematics, sanitation, and job ethics. The amount of time for each session is determined by the course content and should be arranged to suit the convenience of the students.

Special Skills Training

Advanced training based on special aptitudes and interests of students may include:

1. Simple cake decoration.
2. Ornamental sugar work.
3. Classics; i.e., special sauces, specialty dishes, buffet display, and others.
4. Art; for example, ice and vegetable carving, wax work.
5. Menu planning.
6. Food cost accounting.
7. Restaurant operation.

The students in the advanced training classes should be thoroughly competent in all the basic skills and knowledge. Each student is accepted on an individual basis, and his work is directed to the area of his aptitude and interest. The amount of time for each lesson and the length of the course must be determined by the subject matter.

Training Facility, Instructors, and Materials

The training facility for the day trade classes will in most instances suffice also for adult trade classes. The same instructors may be used if their day schedules are not too heavy. Part-time instructors, such as chefs, may be brought in to conduct the classes. A special effort should be made to utilize local talent for advanced training classes.

The finished food products can be sold at cost to class members and faculty, either to be eaten on the premises or to be taken home. If there are other trade programs in the building, making use of the finished product should be no problem. Although the quantity of the material prepared by the class can be geared to the probable sales volume, the major emphasis in extension classes will usually be on variety and technique rather than on the quantity prepared. To provide for experience in quantity preparation when needed, schools can arrange for catering for special functions. Facilities away from the school may be utilized for teaching; i.e., a centrally located food service establishment may make its premises available. The program, however, must always remain under the school's supervision and control.

Certification

All students should be given a certificate on satisfactory completion of their training. The certificate should indicate the training units completed or the total time spent by the student in training.

Success of Adult Programs

Success of adult classes depends on industry's support. The advisory committee should be responsible for publicizing the program through food trades associations and labor organizations. Many workers will be interested in an opportunity to continue their training. Interest will continue if the quality of teaching is high and if industry accepts the value of training by giving wage increases or promotion to those workers who increase their usefulness by taking courses.

Part VI

SUMMARY

To meet the growing need for trained workers in quantity food preparation, vocational schools and comprehensive high schools can organize courses which employ the standards and techniques developed by vocational educators under the Federal vocational education acts and the Manpower Development and Training Act. Planning and advisory committees, with members representing both employers and employees, can help the school develop plans, organize suitable curriculums, select and obtain necessary equipment, publicize the program, recruit students, and place graduates.

Training by vocational education departments should be organized to meet specific community needs, as ascertained by the State employment service and through formal or informal community surveys. Teachers with suitable trade experience should be employed and trained in teaching techniques. Employers should be recruited to assist by offering cooperative training opportunities.

One of the most difficult problems to solve is providing the necessary food materials for class use and the utilization of the finished product. The cost of food is one of the greatest burdens. If it is not utilized to furnish revenue, it may be the one factor which will lead to an unsuccessful program.

Students for preparatory, pre-employment courses may be recruited among boys and girls of high school age who seek a career in food preparation or related employment. Their training may be under a full-time preparatory and/or part-time cooperative plan.

Two types of training for adults may be developed: Extension courses for workers already employed in the industry and preparatory courses for interested adults presently unemployed or working in other fields.

The program's success depends in great measure on the willingness of employers to give preference to individuals who have been initially trained by the schools in quantity food preparation. They need to think of their establishments as on-the-job centers for further training of these individuals. Through practical training of this type, the industry and the schools can build a more stable and efficient work force.

Recent legislation should be studied carefully before any program is attempted. This is especially true of the Manpower Development and Training Act and the Vocational Education Act of 1963, as well as the more recent acts under the poverty program.

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